

### ABSTRACT

A low-noise active pixel circuit is disclosed that efficiently suppresses reset (kTC) noise by using a compact preamplifier consisting of a photodetector and only three transistors of identical polarity, in conjunction with ancillary circuits located on an imager's periphery.

The use of only three transistors with a tapered reset signal allows the optical area to be

5 increased, while still providing a low-noise imager.

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